10/024,554

FOR DISCUSSION PURPOSE ONLY

10. A device for calibrating a spectrometer comprising:

a single radiant source configured to emit radiation, the radiant source being a spectral lamp having a known broad wavelength profile;

an optical amplifier configured to amply the radiation emitted by the single radiant source to produce amplified radiation of the broad wavelength profile;

at least two optical elements configured to produce an interference pattern from the amplified radiation of the single radiant source;

a detector configured to detect the interference pattern and to generate data therefrom; [and]

a processor configured to measure one or more lengths from the data; and

a filter configured to pass a predetermined wavelength of the broad wavelength profile of the amplified radiation, and

a spectrometer for receiving only the filtered predetermined wavelength for calibration.